

REMARKS

Claims 1-10 and 18-25 have been examined. Claims 11-17 and 26-32 have been withdrawn as a result of the election.

Claim Rejections - 35 U.S.C. §103

Claims 1-5, 7-10 and 19-25 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over EP 1741991 to Aisa et al. Reconsideration and withdrawal of the rejection is requested.

Independent claims 1 and 20 require:

- a water softener with a resin container and a brine container,
- a pump for circulating brine from the brine container to the resin container,
- the volume of brine being circulated to the resin container depending on the hardness of the water supply.

Aisa discloses a water softener system where the volume of water supplied to a brine compartments (S) is regulated by a solenoid valve (EB). The volume of water introduced into the brine compartment (S) is controlled depending on the mains water hardness. The brine from the brine compartment (S) flows over a float (G) and into resin container (R) to regenerate the resins.

The Examiner alleges that the regulating valve of Aisa is equivalent to the pump claimed in independent claims 1 and 20, and would have been an obvious modification. The Examiner equates the opening time of the solenoid valve to the duty cycle of the pump specified in claims 1 and 20.

The Examiner contends that the pump is a known substitute for a valve, as both achieve a desirable and predictable result for regulating fluid distribution. Applicant disagrees. Water softeners such as the one described by Asia have the luxury of being able to simply divert a volume of water to a tall container, the static head of which is then used to force the brine fluid through the resin bed and out a low outlet.

The benefit of using a pump as claimed in claims 1 and 20 is that the pump can generate pressure exceeding that of the static head of the brine container. In the system as claimed the

outlet of the resin tank can be above the salt tank. This is particularly beneficial in applications where vertical height is limited. Without limiting the generality of that advantage, one such application is a drawer style dishwasher of the type claimed in claim 18 where the height available for the water softener is typically substantially reduced.

The Examiner contends that Aisa discloses a functionally equivalent water distribution device. Applicant again disagrees. The operation of the outlet 8 cannot be controlled by the user of software, and has no benefit beyond being an overflow for water from the brine supply tank. In contrast, the claimed diverter valve allows use of software to improve salt efficiency and prevent over-softening of the wash water. Aisa does not describe or suggest any method to control the bypass volume, and therefore is incapable of intelligent mixing. Aisa appears to account for different water hardness only by varying the volume and frequency of regeneration, not by intentionally mixing known volumes of raw and treated water.

Therefore, Applicant submits that Aisa does not render obvious independent claims 1 and 20. Reconsideration and allowance is requested.

Claims 2-5, 7-10 and 19 are dependent upon claim 1 which Applicant submits is allowable; claims 22-25 are dependent upon claim 20 which Applicant submits is allowable. Therefore, Applicant submits that claims 2-5, 7-10, 19 and 22-25 are allowable. Reconsideration and allowance is requested.

Claim 6 was rejected under 35 U.S.C. §103 as allegedly being unpatentable over Aisa in view of EP 0545127 to Milocco. Claim 18 was rejected under 35 U.S.C. §103 as allegedly being unpatentable over Aisa in view of WO 01/26532 to Maunsell. Claims 6 and 18 are dependent upon claim 1 which Applicant submits is allowable. Therefore, Applicant submits that claims 6 and 18 are allowable. Reconsideration and allowance is requested.

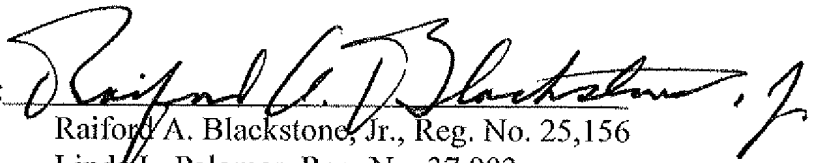
Applicant has concurrently submitting Petition for a Two-Month Extension of Time to respond to this Office Action, therefore extending the deadline to June 8, 2009 (as June 7, 2009 fell on a Sunday).

Should the Examiner have any questions regarding this Amendment, the Examiner is invited to contact one of the undersigned attorneys at (312) 704-1890.

Respectfully submitted,

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By:


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